

JCS20 U.S. PTO  
08/17/99

Attorney's Docket No. DPS \* 1

A  
**PATENT**

JCS20 U.S. PTO  
09/375767

08/17/99

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Box Patent Application  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**NEW APPLICATION TRANSMITTAL**

Transmitted herewith for filing is the patent application of

Inventor(s): David P. Schneider

**WARNING:** Patent must be applied for in the name(s) of all of the actual inventor(s). 37 CFR 1.41(a) and 1.53(b).

For (title): Shark Deterrent

---

**CERTIFICATION UNDER 37 CFR 1.10**

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date 8/14/99 in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number Z 358 171 398, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

David P. Schneider

(type or print name of person mailing paper)



Signature of person mailing paper

NOTE: Each paper or fee referred to as enclosed herein has the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 CFR 1.10(b).

**WARNING:** Certificate of mailing (first class) or facsimile transmission procedures of 37 CFR 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

## 1. Type of Application

This new application is for a(n)

(check one applicable item below)

Original (nonprovisional)  
 Design  
 Plant

**WARNING:** *Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.*

**WARNING:** *Do not use this transmittal for the filing of a provisional application.*

**NOTE:** *If one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.*

Divisional.  
 Continuation.  
 Continuation-in-part (C-I-P).

## 2. Benefit of Prior U.S. Application(s) (35 U.S.C. 119(e), 120, or 121)

**NOTE:** *If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.*

**WARNING:** *If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). (35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.*

**WARNING:** *When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).*

The new application being transmitted claims the benefit of prior U.S. application(s) and enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

## 3. Papers Enclosed That Are Required for Filing Date under 37 CFR 1.53(b) (Regular) or 37 CFR 1.153 (Design) Application

11 Pages of specification  
3 Pages of claims  
1 Pages of Abstract  
3 Sheets of drawing

formal  
 informal

**WARNING:** *DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. Comments on proposed new 37 CFR 1.84. Notice of March 9, 1988 (1990 O.G. 57-62).*

**NOTE:** *"Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page." 37 C.F.R. 1.84(c).*

(complete the following, if applicable)

The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).

**4. Additional papers enclosed**

Preliminary Amendment  
 Information Disclosure Statement (37 CFR 1.98)  
 Form PTO-1449  
 Citations  
 Declaration of Biological Deposit  
 Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.  
 Authorization of Attorney(s) to Accept and Follow Instructions from Representative  
 Special Comments  
 Other

**5. Declaration or oath**

Enclosed

Executed by

(check all applicable boxes)

inventor(s).  
 legal representative of inventor(s).  
37 CFR 1.42 or 1.43.  
 joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.  
 This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See item 13 below for fee.  
 Not Enclosed.

**WARNING:** *Where the filing is a completion in the U.S. of an International Application, but where a declaration is not available, or where the completion of the U.S. application contains subject matter in addition to the International Application, the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.*

Application is made by a person authorized under 37 CFR 1.41(c) on behalf of *all the above named inventor(s)*.

*(The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently).*

**NOTE:** *It is important that all the correct inventor(s) are named for filing under 37 CFR 1.41(c) and 1.53(b).*

Showing that the filing is authorized.  
*(not required unless called into question. 37 CFR 1.41(d))*

## 6. Inventorship Statement

**WARNING:** *If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.*

The inventorship for all the claims in this application are:

The same.

or

Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,  
 is submitted.  
 will be submitted.

## 7. Language

**NOTE:** *An application including a signed oath or declaration may be filed in a language other than English. A verified English translation of the non-English language application and the processing fee of \$130.00 required by 37 CFR 1.17(k) is required to be filed with the application, or within such time as may be set by the Office. 37 CFR 1.52(d).*

**NOTE:** *A non-English oath or declaration in the form provided or approved by the PTO need not be translated. 37 CFR 1.69(b).*

English

Non-English

The attached translation is a verified translation. 37 CFR 1.52(d).

## 8. Assignment

An assignment of the invention to \_\_\_\_\_

---

is attached. A separate  "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or  FORM PTO 1595 is also attached.  
 will follow.

**NOTE:** *"If an assignment is submitted with a new application, send two separate letters-one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).*

**WARNING:** *A newly executed "CERTIFICATE UNDER 37 CFR 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.*

## 9. Certified Copy

Certified copy(ies) of application(s)

country	appn. no.	filed
country	appn. no.	filed
country	appn. no.	filed

from which priority is claimed

is (are) attached.  
 will follow.

NOTE: The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 CFR 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

## 10. Fee Calculation (37 CFR 1.16)

### A. Regular application

CLAIMS AS FILED			
Number filed	Number Extra	Rate	Basic Fee 37 CFR 1.16(a)
Total		18.00	\$ 72.00
Claims (37 CFR 1.16(c)) 24 - 20 =	4	× <del>18.00</del>	<del>72.00</del>
Independent Claims (37 CFR 1.16(b)) 3 - 3 = 0	0	× \$ 80.00	0
Multiple dependent claim(s), if any (37 CFR 1.16(d))	0	+ \$26.00	0

Amendment cancelling extra claims enclosed.  
 Amendment deleting multiple-dependencies enclosed.  
 Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calculation

\$ ~~72.00~~ 832.00

B.  Design application  
(\$310.00—37 CFR 1.16(f))

Filing Fee Calculation \$ \_\_\_\_\_

C.  Plant application  
(\$510.00—37 CFR 1.16(g))

Filing fee calculation \$ \_\_\_\_\_

**11. Small Entity Statement(s)**

Verified Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is (are) attached.

**WARNING:** "Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly or indirectly dependent upon the application or patent in which the status has been established. A nonprovisional application claiming benefit under 35 U.S.C. 119(e), 120, 121 or 365(c) of a prior application may rely on a verified statement filed in the prior application if the nonprovisional application includes a reference to a verified statement in the prior application or includes a copy of the verified statement filed in the prior application if status as a small entity is still proper and desired." 37 C.F.R. § 1.28(a).

(complete the following, if applicable)

Status as a small entity was claimed in prior application

\_\_\_\_\_ / \_\_\_\_\_, filed on \_\_\_\_\_, from which benefit is being claimed for this application under:

35 U.S.C.  119(e),  
 120,  
 121,  
 365(c),

and which status as a small entity is still proper and desired.

A copy of the verified statement in the prior application is included.

Filing Fee Calculation (50% of A, B or C above) \$ 416.00

**NOTE:** Any excess of the full fee paid will be refunded if a verified statement and a refund request are filed within 2 months of the date of timely payment of a full fee. The two-month period is not extendable under § 1.136. 37 CFR 1.28(a).

**12. Request for International-Type Search (37 CFR 1.104(d))**

(complete, if applicable)

Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

**13. Fee Payment Being Made at This Time**

Not Enclosed

No filing fee is to be paid at this time.

*(This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.)*

Enclosed

Basic filing fee \$ 416.00

Recording assignment

*(\$40.00; 37 CFR 1.21(h))*

*(See attached "COVER SHEET FOR  
ASSIGNMENT ACCOMPANYING NEW  
APPLICATION".)*

\$ \_\_\_\_\_

Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached.

*(\$130.00; 37 CFR 1.47 and 1.17(h))*

\$ \_\_\_\_\_

For processing an application with a specification in a non-English language. *(\$130.00; 37 CFR 1.52(d) and 1.17(k))*

\$ \_\_\_\_\_

Processing and retention fee *(\$130.00; 37 CFR 1.53(d) and 1.21(l))*

\$ \_\_\_\_\_

Fee for international-type search report *(\$40.00; 37 CFR 1.21(e))*

\$ \_\_\_\_\_

**NOTE:** 37 CFR 1.21(l) establishes a fee for processing and retaining any application that is abandoned for failing to complete the application pursuant to 37 CFR 1.53(d) and this, as well as the changes to 37 CFR 1.53 and 1.78, indicate that in order to obtain the benefit of a prior U.S. application, either the basic filing fee must be paid, or the processing and retention fee of § 1.21(l) must be paid, within 1 year from notification under § 53(d).

Total fees enclosed \$ 416.00

**14. Method of Payment of Fees**

Check in the amount of \$ 416.00

Charge Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_.  
A duplicate of this transmittal is attached.

**NOTE:** Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 CFR 1.22(b).

## 15. Authorization to Charge Additional Fees

**WARNING:** If no fees are to be paid on filing, the following items should not be completed.

**WARNING:** Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. \_\_\_\_\_

37 CFR 1.16(a), (f) or (g) (filing fees)  
 37 CFR 1.16(b), (c) and (d) (presentation of extra claims)

**NOTE:** Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid on these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 CFR 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)  
 37 CFR 1.17 (application processing fees)

**WARNING:** While 37 CFR 1.17(a), (b), (c) and (d) deal with extensions of time under § 1.136(a), this authorization should be made only with the knowledge that: "Submission of the appropriate extension fee under 37 C.F.R. 1.136(a) is to no avail unless a request or petition for extension is filed." (Emphasis added). Notice of November 5, 1985 (7060 O.G. 27).

37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b))

**NOTE:** Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 CFR 1.311(b).

**NOTE:** 37 CFR 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . issue fee." From the wording of 37 CFR 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

## 16. Instructions as to Overpayment

Credit Account No. \_\_\_\_\_  
 Refund

---

### SIGNATURE OF ATTORNEY

Reg. No.

---

(type or print name of attorney)

Tel. No. ( 607 ) 625-2645

---

P.O. Address

**Incorporation by reference of added pages**

*(check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED)*

Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed

Number of pages added \_\_\_\_\_

Plus Added Pages for Papers Referred to in Item 4 Above

Number of pages added \_\_\_\_\_

Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added \_\_\_\_\_

**Statement Where No Further Pages Added**

*(if no further pages form a part of this Transmittal, then end this Transmittal with this page and check the following item.)*

This transmittal ends with this page.

## RECEIPT AND HANDLING OF MAIL AND PAPERS

Applicant or Patentee: David P. Schneider  
 Serial or Patent No.: \_\_\_\_\_  
 Filed or Issued: \_\_\_\_\_  
 Title: \_\_\_\_\_

Attorney's  
Docket No.: \_\_\_\_\_

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(i) & 1.27(b))--INDEPENDENT INVENTOR

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office regarding the invention entitled \_\_\_\_\_ described in:

the specification filed herewith.  
 application serial number \_\_\_\_\_, filed \_\_\_\_\_  
 patent number \_\_\_\_\_, issued \_\_\_\_\_

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:\*

No such person, concern, or organization  
 Persons, concerns or organizations listed below\*

\* Note: Separate verified statements are required from each named person, concern or organization having rights to the invention according to their status as small entities. (37 CFR 1.27)

NAME David P. Schneider  
 ADDRESS 4 Woodside Dr. East, Apalachin, NY 13732  
 INDIVIDUAL       SMALL BUSINESS CONCERN       NONPROFIT ORGANIZATION

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 INDIVIDUAL       SMALL BUSINESS CONCERN       NONPROFIT ORGANIZATION

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 INDIVIDUAL       SMALL BUSINESS CONCERN       NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

David P. Schneider  
 NAME OF INVENTOR  
David P. Schneider  
 Signature of inventor 8/13/99

NAME OF INVENTOR

Signature of inventor

Date

NAME OF INVENTOR

Signature of inventor

Date

## SHARK DETERRENT

Inventor: David Paul Schneider, 4 Woodside Drive E., Apalachin, NY.

13732

## REFERENCES CITED

US Patent 4,602,384	7/1986	Schneider	2/2
US Patent 4,917,280	4/1990	Schneider	224/223
US Patent 4,933,187	6/1990	Schneider	424/497

## FIELD OF THE INVENTION

SEARCHED - SERIALIZED

The present invention pertains to chemically protecting against sharks or other dangerous sea creatures that are sensitive to these chemical deterrents.

## BACKGROUND OF THE INVENTION

To date, my patented means of deterring shark attack is to utilize the arts taught in my existing patents. These patents are US patents 4,602,384 and 4,917,280 and 4,933,187. They describe my coated chemical pellets and the various protective coatings utilized to prolong or prevent the melting of those chemical pellets. It can be noted in reviewing these patents that almost all of the protective coatings described melt in water so they will subsequently dissolve and expose the chemicals they cover. These shark repulsive chemicals will then also melt in the water since their protective coatings have

been melted away. Some of the coatings are insoluble, they must be broken open physically before the chemicals will be exposed to the water in which they are immersed when in use.

#### SUMMARY OF THE INVENTION

It is an object of the present invention to produce a shark repulsive chemical cylinder or other shaped chemical conglomerate, even particulates, the ingredients of which, such as Sodium Lauryl Sulfate and Sodium Sulfate, are described in my previous patents listed above. The water proof coating on this cylinder or other shaped chemical conglomerates will act in a somewhat different fashion than those described in my previously mentioned patents.

It is another object of this invention to eliminate the need for certain manufacturing steps presently necessary in production of these coated chemical conglomerate shapes.

It is a further object of this invention to use bulkheads or special chemical conglomerate shapes which by their very configuration help prolong the dissolution time taken to completely dissolve the chemical out of its containment.

It is still a further object of this invention to provide a container for these chemical conglomerates which may be a separate part from the chemical conglomerate yet protect it from too fast a dissolving rate.

It is a further object of this invention to provide a plastic or metallic container for the chemicals which will negate the need for water proof or water retardant coatings.

It is yet another object of this invention to describe a different and more effective mixture of chemicals for deterring shark attacks.

#### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a chemical cylinder coated with the containment materials which are one embodiment of the invention's systems;

FIG. 2 is a side view of a chemical cylinder showing one method for improved manufacturing tooling techniques;

FIG. 3 is a side view of a group of chemical conglomerate cylinders showing another possible arrangement of these cylinders in relationship to one another;

FIG. 4 is a side view of a chemical conglomerate shaped to prolong melting;

FIG. 5 is a side view of a chemical conglomerate placed inside a rigid or flexible container without the use of any surface coatings.

#### DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings wherein like reference characters indicate like parts in the several views, there is shown in FIG. 1 a chemical conglomerate 12 in the shape of a cylinder. This cylinder 12 is the basic type of shape but not the exclusive shape for this chemical conglomerate so many other shapes could be utilized. In one

embodiment of this chemical conglomerate it is made of a dry, granular anhydrous sodium sulfate and liquid sodium lauryl sulfate mixed together in a ratio by volume which is at least two thirds liquid sodium lauryl sulfate to no more than one third dry, granular anhydrous sodium sulfate. To this mixture can be added varying amounts of polyvinyl acetate resin latex (commonly known as organic, water soluble, white liquid glue) which adds the effect of prolonging the time for a given volume of the mixture to dissolve into water when the chemical conglomerate which contains this white glue is immersed into water. The sodium sulfate acts as a drying agent for the sodium lauryl sulfate. After drying the chemical conglomerate can be made into any shape, even particulates. The white glue acts as a water soluble binder. This chemical conglomerate in a cylinder shape 12 may also have, if desired to retard its melting in water, one or more coatings of slower melting materials of different kinds suitable for that purpose. One such material is common liquid white glue but there are numerous other types of materials which could perform the same function. This coating 11 would be applied as a first completely encompassing coating to slow the melting of the chemical conglomerate in the cylinder shape. This first coating 11 could then have over top of it applied a waterproof coating 10. This waterproof coating 10 is applied to all but one end 14 of the chemical conglomerate. It could be further restricted in its application to just one narrow strip on that end 14 or on the side of the chemical conglomerate cylinder shape 12 or to an even smaller area such as an area of only a half inch in diameter or even smaller if desired. The first coating 11 can be made for example of white glue or some other slow melting material by dipping the dried chemical conglomerate shape into a vat of this

liquified slow melt coating. The dipping, if desired, could stop short of totally immersing the shape 12 so that its one end 14, for example, would not be coated with the coating agent 11. In some cases, it would be proper, depending on the intended use for the finished chemical part, to totally immerse the chemical conglomerate cylinder 12 into the liquid so it would be totally coated. Another means of applying a coating such as coating 11 onto the chemical conglomerate cylinder 12 would be to spray it on or roll or brush it onto the chemical's surface. All these application methods, as well as other applicable methods not mentioned, are well known coating techniques in industry and could be utilized for this coating purpose. The second coating 10 may be applied in the same way as coating 11 or it may be injected around the chemical conglomerate cylinder as it rests inside a mold if the waterproof coating 10 is viscous enough to merit this method of application. Of course, the chemical conglomerate cylinder itself 12 could be made in a mold but could also be formed by utilizing any other commonly practiced techniques for forming such shapes out of particulates such as compacting under great force inside a set of dies. The overall purpose for not coating the one end 14 of the chemical conglomerate cylinder 12 or some other small portion of its surface with the waterproof coating 10 is so that when it is immersed, the water in which it is immersed will have access only through that opening in the coating 10 to get into the interior of the coated chemical conglomerate cylinder 12. In this way, the water can dissolve the contained chemical inside the chemical conglomerate cylinder without the need for the user to break open the waterproof coating before any

melting can occur. This one small opening where the waterproof coating has not been put in place allows for a very small, restricted flow of water to penetrate into the inside of the chemical conglomerate cylinder where the chemical is located. This has the effect, when compared to a chemical conglomerate cylinder that has no type 10 waterproof coating, of slowing the melting of the chemical contained inside the chemical conglomerate cylinder. This is so that the chemical dissolution into the water takes place over a longer period of time as compared to a chemical conglomerate cylinder which has only a slow melting coating 11 in place. Of course the description of this chemical as being cast and shaped in the form of a cylinder is not intended to indicate that other shapes for the chemical conglomerate are not allowed or covered by this patent. Any shape desired for the chemical conglomerate can be used including the cylindrical form and still be covered by this patent. It is also logical that either one or both of the coatings 11 and 10 could be replaced by what is commonly called a tin can or aluminum can. This also would produce the desired waterproof containment of the chemical conglomerate and have the same effect of slowing down the rate at which the contained chemical conglomerate melted. Such a can could be exactly like current day soda pop cans with a flip or pop top opening that could be opened by the user at the time of use. This metal can approach would provide the very size opening in the one end of the waterproof containment that this embodiment in Fig. 1 describes. Of course, the application which requires the chemical conglomerate to be exposed to the water without any human intervention would require

a top on the can which had a hole in place that had no closure. Then, in an emergency such as a ship sinking, the can containing the chemical conglomerate, which could be attached to the user's person or life raft, could automatically start melting through such a hole in the can's top as soon as it was immersed into the water.

FIG. 2 shows the same chemical cylinder as in Fig. 1 but with a piece of twine or string or wire 13 cast inside the chemical conglomerate cylinder when the cylinder was formed. Such a wire or string tool 13 may be used to hang the cylinder suspended in air without the need to touch the cylinder. This will allow the cylinder to be immersed into a vat of liquified coating material much more readily than if such a tool was not included in the cylinder's structure. It will also facilitate the subsequent drying of the coated cylinder by providing for it to be hung in mid air untouched by any supporting means which would be needed if this wire or string tool 13 was not in place on the cylinder. If desired, this tool can be cut away after all manufacturing is completed.

FIG. 3 shows the same chemical cylinder 12 as in Fig. 1 but situated in a pattern in proximity with other chemical cylinders. These other chemical cylinders may be the same as all their neighboring cylinders or they may each contain different chemicals or even contain mechanical or electrical or electronic devices intended for the revulsion of sharks or other sea creatures. These cylinders or other shapes can be held in permanent positions in reference to one another by the same material used to form coating 10 as identified in Fig. 1 or they may be situated near one another and

held in that situation by some other mechanical means such as a metal or plastic framework 17. The arrangement of these shapes in relationship to one another may describe any pattern and not just the circular one shown.

FIG. 4 shows the same chemical cylinder 12 as in Fig. 1 but somewhat elongated in shape and displaying a narrow section ( which item 15 can also be described as a bulkhead created restriction) 15 at regular intervals which is smaller in diameter than those larger diameter sections 16 on either side of it. This restriction 15 is useful in diminishing the amount of water that can wash in upon the chemical located in each of the adjoining large diameter segments 16.

This can slow the sequential melting of the chemicals in each of the successive large diameter chambers 16 and have the effect of making the whole chemical assembly slower melting in the water. This restriction 15 can be effected by molding it into the molded shape of the chemical conglomerate before that completed shape is coated. This restricted orifice can also be accomplished by creating a plastic disc with a hole in its center or a multiple number of small holes in its center section. By placing duplicates of this plastic disc into the chemical conglomerate's molded shape or into its aluminum can during the formation of the chemical conglomerate inside that can this plastic disc will form repeatedly spaced bulkheads 15 into the mold at regular intervals. These bulkheads can then become an integral part of the completed chemical cylinder 12. Such a bulkhead part could be made of any rigid or semirigid or flexible material and have a small hole piercing its center or have several holes piercing it in several locations so the water could get through each bulkhead

and into the next chamber beyond this bulkhead without entering that next chamber in too large a volume of flow. This will have the effect of slowing the melting rate of any chemical conglomerate so equipped with these bulkheads formed out of the above described discs.

FIG. 5 shows the same chemical cylinder 12 as in Fig. 1 but it is inserted into or even originally formed inside a rigid or semi rigid or flexible container 18. This container 18 can be filled or packed with the chemical conglomerate mixture 12 and, if desired, then sealed shut with a top 19 much the same as in the manufacture of many other products which are sold in sealed cans or plastic containers.

These currently commercially available container systems have, in the general case of aluminum beverage containers, a flip top closure tab 20 which can be readily snapped open by the user. Placing the chemical conglomerate inside a metal or plastic container has the effect of making the wall of the can or container which contains the chemical conglomerate substitute for and function as the waterproof coating or covering 10 as described in FIG. 1. This waterproof coating 10 could however be utilized inside this container 18 when the chemical conglomerate is placed inside this container. To accomplish a complete waterproof bond between the inside wall of the container and the sides of the chemical conglomerate, the inside walls and bottom of the container would first be coated with the viscous waterproof coating 10 in sufficient quantity that it would completely fill in the space between the inside surfaces of the container and the sides and bottom of the chemical conglomerate when the chemical conglomerate was placed inside the container. There can be plastic formed bulkheads 15 placed at intervals inside the can or

container 18 forming chambers 16 in container 18. These bulkheads 15 create the narrow opening between the larger chambers 16 at regular or irregular intervals as desired. This restriction 15 is useful in diminishing the amount of water that can wash in upon the chemical located in the larger diameter segments 16 which are located on either side of the flow restricting bulkhead 15.

It is obvious that the shapes described and the coatings mentioned above may be replaced by other means and yet not avoid the scope of this patent. For example, the waterproof coating 10 in FIG. 1 need not be a coating at all but for example it could be made out of a

circular sleeve of plastic into which the chemical conglomerate cylinder or other shape could be inserted. This plastic cylinder container could be rigid or flexible and sealed on its end or ends after filling by any common method now in use to accomplish such a sealing. Such sealing methods are in common use and include gluing shut the ends or just the one end with a glue or solvent or using a heat sealing or heat shrinking method and so on.

It is also obvious that contrary to the FIG. 1 arrangement of the two coatings, that either one of those coatings could be used by itself without the other coating or even three coatings or more could also be employed without going outside the teachings and coverage of this patent.

It is obvious that the embodiments of this invention could be successfully effected using many different types of materials other than those described in this patent and even different from those normally used currently. I do not intend to limit these designs to

only chemicals or plastics or some other polymers. Even steel or some other metal cans could be used to contain the chemicals with no coatings over the surface of the chemicals of any kind. The chemicals could be packed into the cans with only one end of the can being open and used by submersing it in water in just that fashion with no coatings of any kind involved. The metal can could be sealed at its open end with a lid that could exhibit its own sealed opening. The container could also be a glass container without going outside the scope of this patent.

652720-292720

I claim:

1. A chemical conglomerate comprising sodium lauryl sulfate and a water soluble binder for retarding the dissolution of the conglomerate in water, said chemical conglomerate being at least partially coated with a sealant for restricting dispersion of said chemical conglomerate into water.
2. The chemical conglomerate as in claim 1, wherein said sealant comprises a caulking material.
3. The chemical conglomerate as in claim 1, wherein said water soluble binder comprises white glue.
4. The chemical conglomerate as in claim 1, further comprising an outer coating of a water soluble composition.
5. The chemical conglomerate as in claim 4, wherein said water soluble composition comprises white glue.
6. The chemical conglomerate as in claim 1, further comprising a drying agent for the production of particulates and other shapes.
7. The chemical conglomerate as in claim 6, wherein said drying agent comprises granular anhydrous sodium sulfate.
8. The chemical conglomerate as in claim 6, wherein said drying agent is no more than one third and said sodium lauryl sulfate is no less than two thirds the volume of said chemical conglomerate.
9. The chemical conglomerate as in claim 1, further comprising an imbedded wire that protrudes from the surface of said chemical conglomerate.
10. The chemical conglomerate as in claim 1, wherein said conglomerate is configured as a longitudinal member having an outer

dimension and further comprising restrictive locations along said longitudinal member, having smaller dimensions than said outer dimension.

11. The chemical conglomerate as in claim 10, formed with bulkheads interspersed along its length which bulkheads have at least one hole included in them.

12. An assembly containing a chemical conglomerate comprising sodium lauryl sulfate and a water soluble binder for retarding the dissolution of the conglomerate in water, said chemical conglomerate being at least partially coated with a sealant for restricting dispersion of said chemical conglomerate into water and a container  
for encasing said chemical conglomerate.

13. The assembly in claim 12, wherein said sealant comprises a caulking material.

14. The assembly as in claim 12, wherein said water soluble binder comprises white glue.

15. The assembly as in claim 12, further comprising an outer coating of a water soluble composition.

16. The assembly as in claim 15, wherein said water soluble composition comprises white glue.

17. The assembly as in claim 12, further comprising a drying agent for the production of particulates and other shapes.

18. The assembly as in claim 17, wherein said drying agent comprises granular anhydrous sodium sulfate.

19. The assembly as in claim 12, further comprising an imbedded wire that protrudes from the surface of said chemical conglomerate.

20. The assembly as in claim 12, wherein said conglomerate is configured as a longitudinal member having an outer dimension and

further comprising restrictive locations along said longitudinal member, having smaller dimensions than said outer dimension.

21. The assembly as in claim 20, wherein said restrictive locations are formed with bulkheads interspersed along said conglomerate length which bulkheads have at least one hole included in them.

22. The assembly as in claim 12, said container further comprising a lid to seal shut the open end of said container.

23. The assembly as in claim 22, wherein said container lid comprises a pop top said pop top creating when activated a small opening in said lid.

24. The assembly as in claim 22, wherein said container lid comprises  
at least one aperture that pierces the surface of said lid to the  
opposite side thereof with or without a closure.

SEARCHED - INDEXED - SERIALIZED - FILED

## ABSTRACT

To provide a chemical conglomerate which when properly coated or contained can dissolve over very long periods of time in sea water that will discourage shark attack or attacks by other sea creatures that are sensitive to the included chemicals. This chemical can be carried into the sea in many different designs of packaging so that eventually, when called upon, it will dissolve into the sea water and be there in enough quantity to deter sharks that would otherwise attack and cause damage.

PCT/US2012/023330

6627120 • 69255260

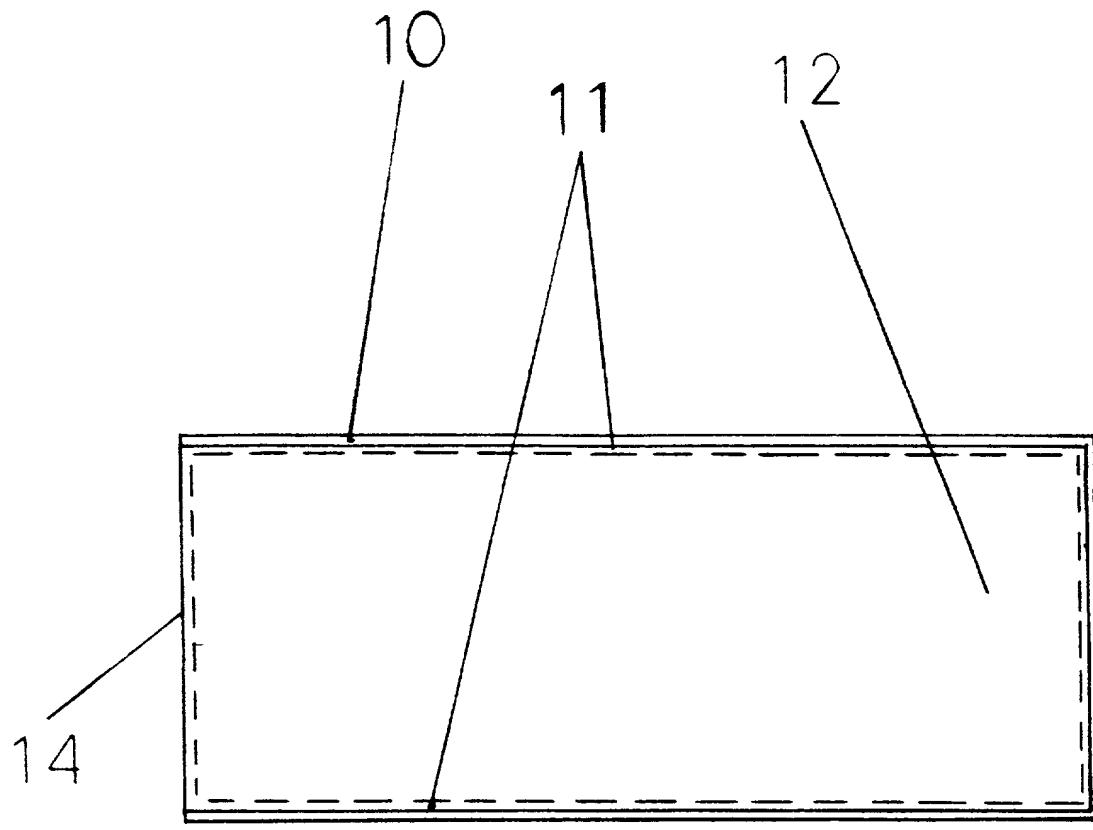
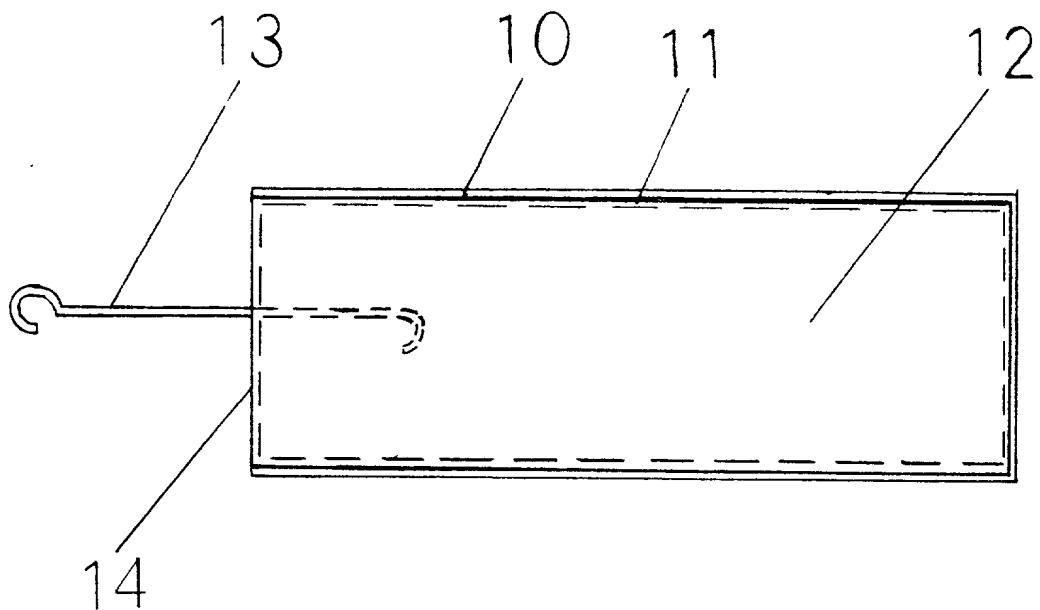
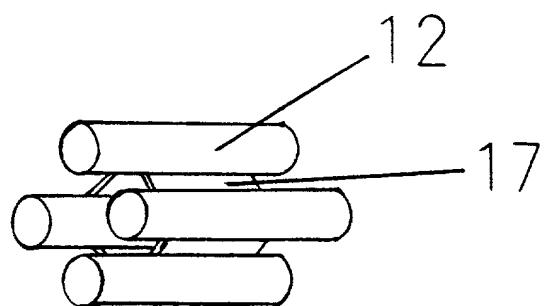


FIG. 1

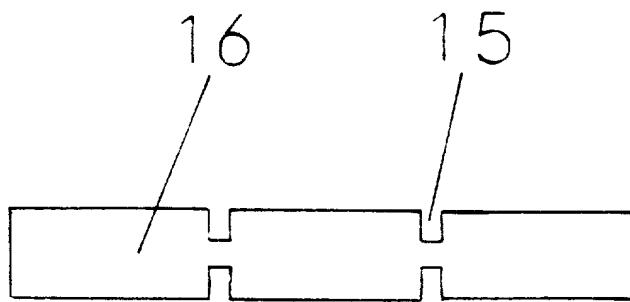


F I G. 2

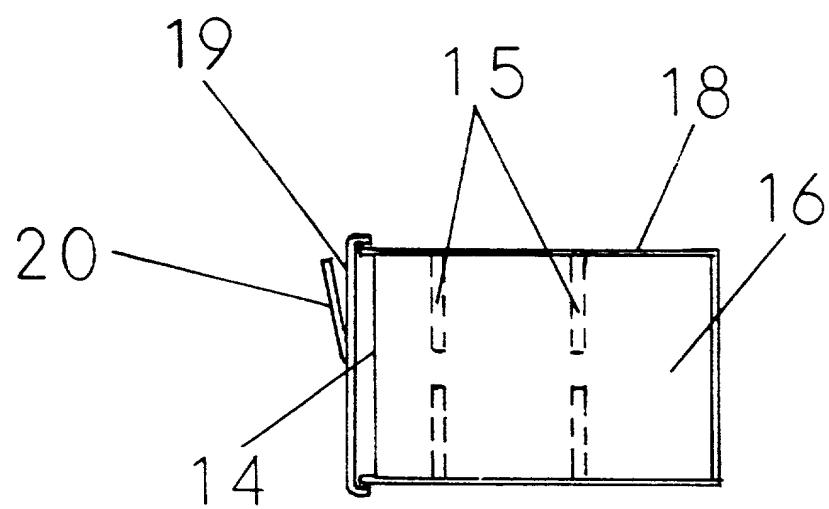
65CT80-C9C5CE50



F I G. 3

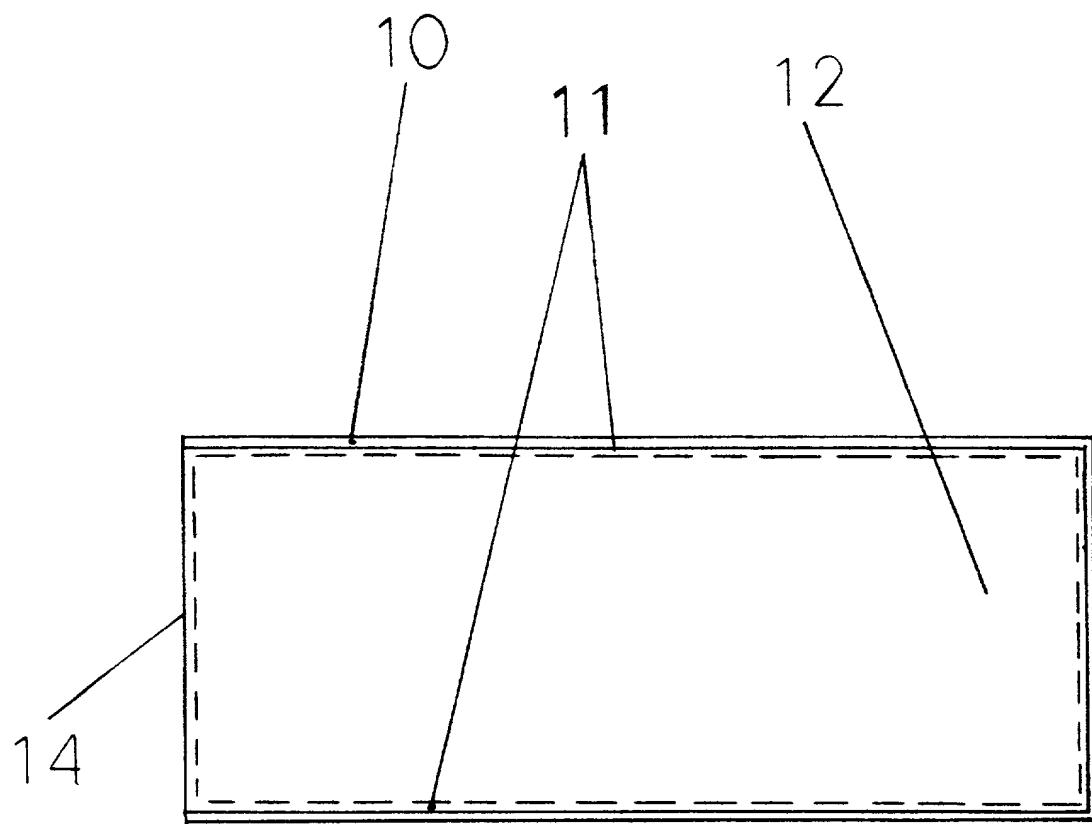


F I G. 4

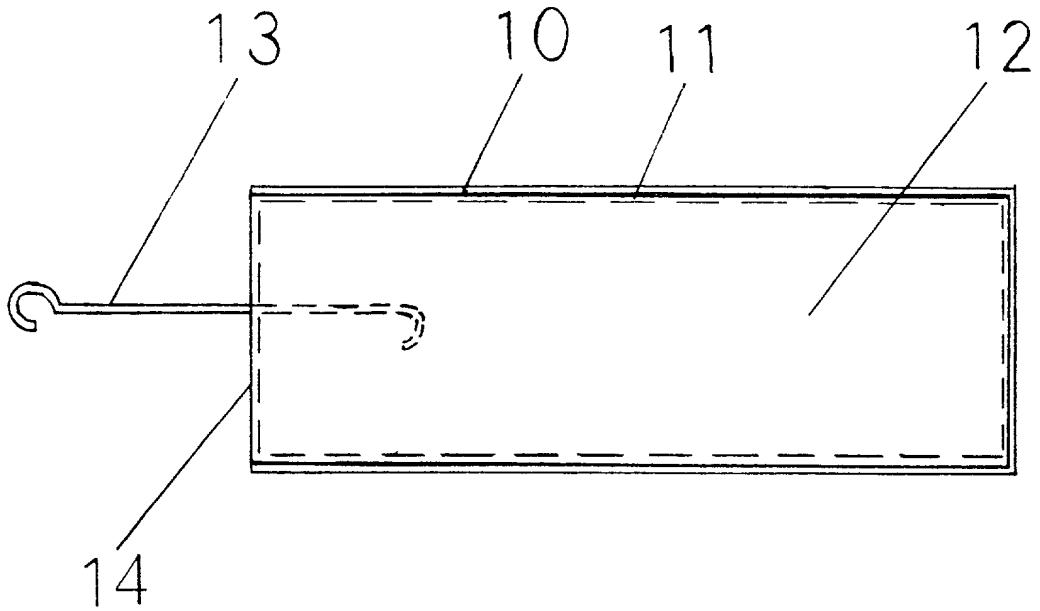


F I G. 5

5627120 " 29656260

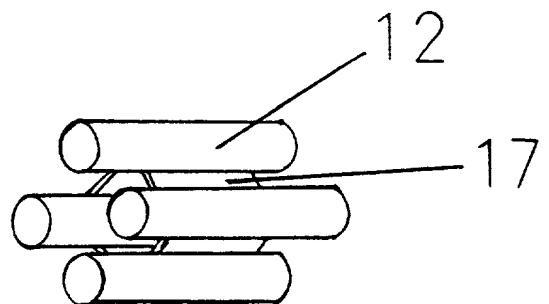


F I G. 1



F I G. 2

55°C T<80°C 25°C 55°C



F I G. 3

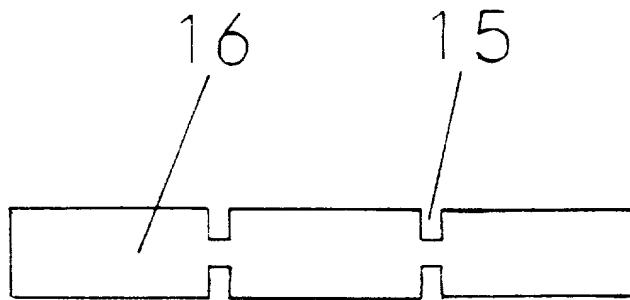


FIG. 4

65CT80-A9252560

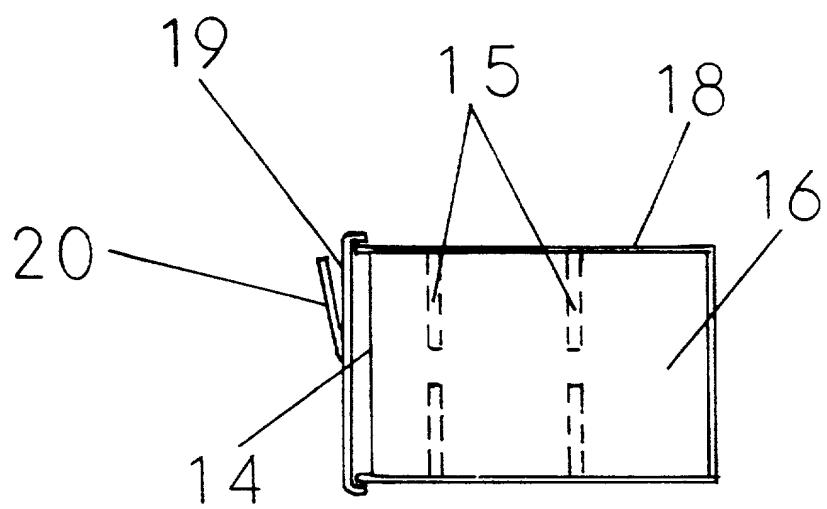


FIG. 5

562730-AUG-60

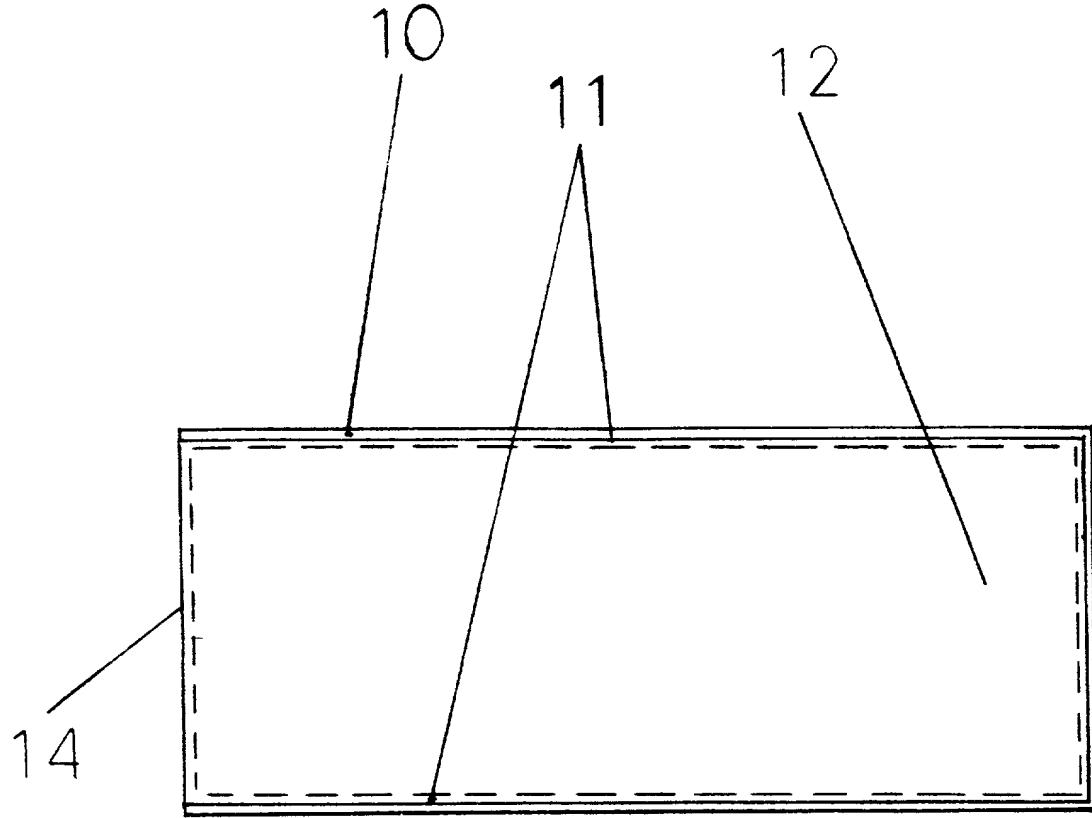
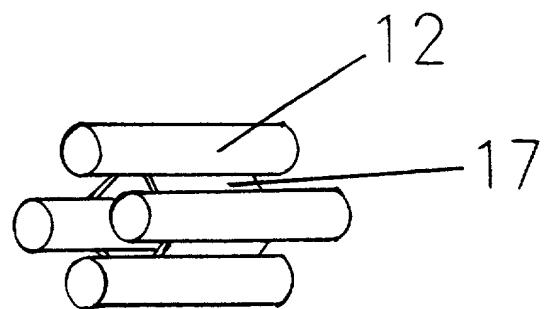
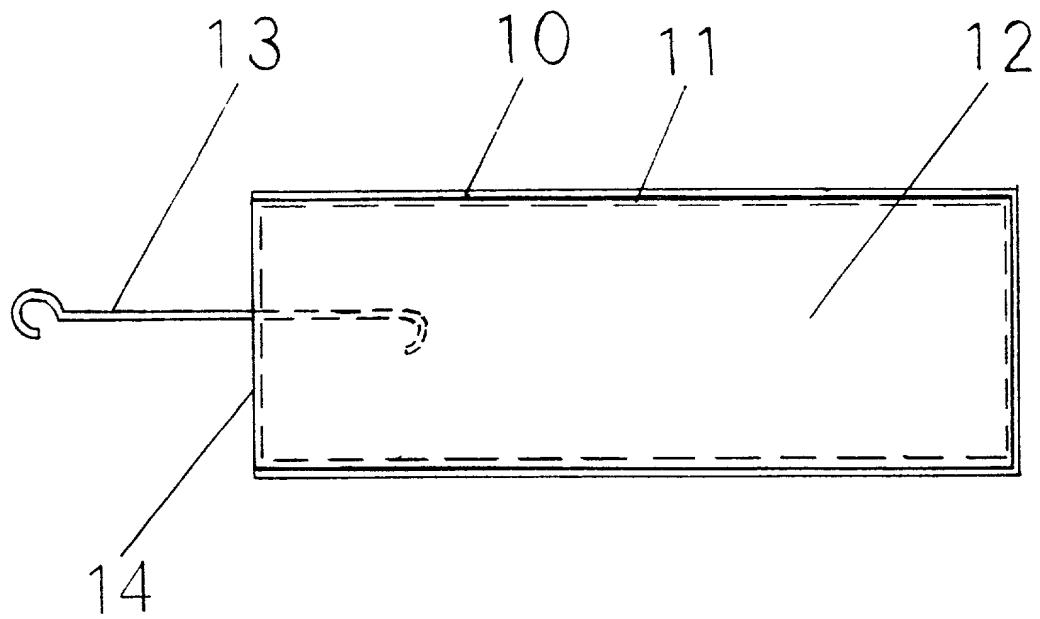


FIG. 1

562730 " 2925260



652780 " 202500000

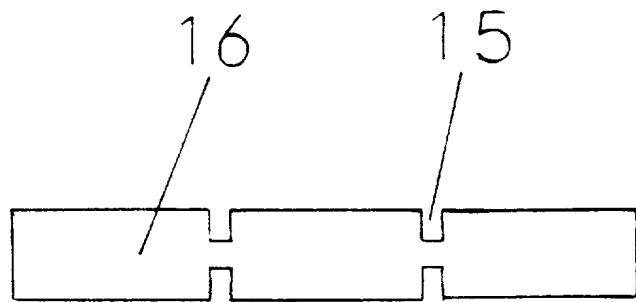


FIG. 4

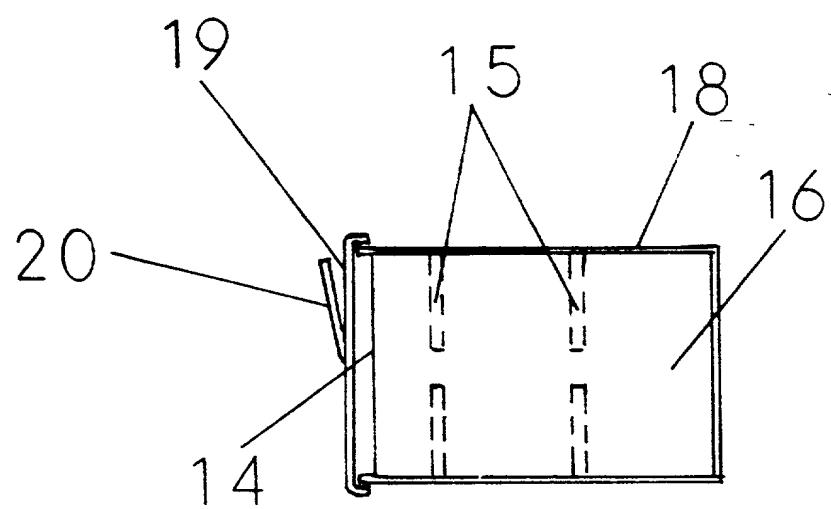


FIG. 5

Attorney's Docket No. DPS \* 1

**PATENT**

---

**COMBINED DECLARATION AND POWER OF ATTORNEY**

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,  
CONTINUATION OR C-I-P)

---

As a below named inventor, I hereby declare that:

**TYPE OF DECLARATION**

This declaration is of the following type:

*(check one applicable item below)*

original.  
 design.  
 supplemental.

*NOTE: If the declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.*

national stage of PCT.

*NOTE: If one of the following 3 items apply, then complete and also attach ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.*

divisional.  
 continuation.  
 continuation-in-part (C-I-P).

**INVENTORSHIP IDENTIFICATION**

*WARNING: If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.*

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (*if only one name is listed below*) or an original, first and joint inventor (*if plural names are listed below*) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

**TITLE OF INVENTION**

SHARK DETERRENT

---

## SPECIFICATION IDENTIFICATION

the specification of which:

(complete (a), (b) or (c))

(a)  is attached hereto.

(b)  was filed on \_\_\_\_\_, as  Serial No. 0 / \_\_\_\_\_  
or  Express Mail No., as Serial No. not yet known \_\_\_\_\_  
and was amended on \_\_\_\_\_ (if applicable).

NOTE: Amendments filed after the original papers are deposited with the PTO that contain new matter are not accorded a filing date by being referred to in the declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 CFR 1.67.

(c)  was described and claimed in PCT International Application No. \_\_\_\_\_, filed on \_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_ (if any).

## ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56,

(also check the following items, if desired)

and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

in compliance with this duty, there is attached an information disclosure statement, in accordance with 37 CFR 1.98.

## PRIORITY CLAIM (35 U.S.C. § 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

(d)  no such applications have been filed.

(e)  such applications have been filed as follows.

NOTE: Where item (c) is entered above and the International Application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION  
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
			<input type="checkbox"/> YES      NO <input type="checkbox"/>
			<input type="checkbox"/> YES      NO <input type="checkbox"/>
			<input type="checkbox"/> YES      NO <input type="checkbox"/>
			<input type="checkbox"/> YES      NO <input type="checkbox"/>
			<input type="checkbox"/> YES      NO <input type="checkbox"/>

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)  
(34 U.S.C. § 119(e))**

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER

FILING DATE

\_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_

**CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)  
UNDER 35 U.S.C. 120**

The claim for the benefit of any such applications are set forth in the attached ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART (C-I-P) APPLICATION.

(Declaration and Power of Attorney [1-1]—page 3 of 6)

**ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

---

---

**NOTE:** If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage, or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.

**POWER OF ATTORNEY**

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

*(list name and registration number)*

*(check the following item, if applicable)*

Attached, as part of this declaration and power of attorney, is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

---

SEND CORRESPONDENCE TO

David P. Schneider  
4 Woodside Dr. East  
Apalachin, NY. 13732

DIRECT TELEPHONE CALLS TO:

*(Name and telephone number)*  
607-625-2645

---

**DECLARATION**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**SIGNATURE(S)**

NOTE: Carefully indicate the family (or last) name, as it should appear on the filing receipt and all other documents.

**Full name of sole or first inventor**

<u>David</u> (GIVEN NAME)	<u>P.</u> (MIDDLE INITIAL OR NAME)	<u>Schneider</u> FAMILY (OR LAST NAME)
Inventor's signature <u>R. Schneider</u>	Date <u>8/13/99</u>	Country of Citizenship <u>USA</u>
Residence <u>4 Woodside Dr. East, Apalachin, NY. 13732</u>		
Post Office Address <u>Same</u>		

**Full name of second joint inventor, if any**

<u>(GIVEN NAME)</u>	<u>(MIDDLE INITIAL OR NAME)</u>	<u>FAMILY (OR LAST NAME)</u>
Inventor's signature _____		
Date _____	Country of Citizenship _____	
Residence _____		
Post Office Address _____		

**Full name of third joint inventor, if any**

<u>(GIVEN NAME)</u>	<u>(MIDDLE INITIAL OR NAME)</u>	<u>FAMILY (OR LAST NAME)</u>
Inventor's signature _____		
Date _____	Country of Citizenship _____	
Residence _____		
Post Office Address _____		

(Declaration and Power of Attorney [1-1]—page 5 of 6)

(check proper box(es) for any of the following added page(s)  
that form a part of this declaration)

Signature for fourth and subsequent joint inventors. Number of pages added \_\_\_\_\_

\* \* \*

Signature by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. Number of pages added \_\_\_\_\_

\* \* \*

Signature for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. Number of pages added \_\_\_\_\_

\* \* \*

Added page for signature by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time. (37 CFR 1.47)

\* \* \*

Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.

Number of pages added \_\_\_\_\_

\* \* \*

Authorization of attorney(s) to accept and follow instructions from representative.

(if no further pages form a part of this Declaration,  
then end this Declaration with this page and check the following item)



This declaration ends with this page.